

What is claimed is:

1. An end face polishing device, comprising a pressing unit pressing an end face of a fixed bar member to a polishing sheet and a driving unit driving the polishing sheet in roulette shape moving while rotating on circumference parallel to the end face of the bar member.

2. An end face polishing device, having a rotating shaft eccentric from revolution center of a first revolution shaft in the revolution shaft, a second revolution shaft eccentric from the rotation center of the rotation shaft in the rotation shaft, and a polishing disc connected to the second revolution shaft.

3. An end face polishing device according to Claim 2, wherein the second revolution shaft has an internal gear fixed at a frame of the end face polishing device, a first transfer gear engaging with the internal gear, a rotation shaft having a second transfer gear at opposite end portion of the end portion of the first transfer gear, and an external gear engaging with the second transfer gear.

4. An end face polishing device according to Claim 3, wherein the first revolution shaft is connected to a motor through a timing belt.

5. An end face polishing device according to Claim 4, wherein the rotation shaft is connected to the motor through another timing belt.

6. An end face polishing device according to Claim 2, having an ultrasonic actuator contacting an external circumference portion of the first revolution shaft and rotating the rotation shaft.

7. A method for polishing an end face comprising steps of pressing an end face of a fixed bar member to a polishing sheet and driving the polishing sheet in roulette shape moving while rotating on circumference parallel to the end face of the bar member.

8. A method for polishing an end face according to Claim 7,

wherein the roulette is cycloid.

9. A method for polishing an end face according to Claim 7,

wherein the roulette is internal cycloid.

10. A method for polishing an end face according to Claim 7,

wherein the roulette is external cycloid.

11. A method for polishing an end face according to Claim 7,

wherein the roulette is relative trochoid inscribed to a first circle and drawn by a point fixed at a second circle smaller in diameter than the first circle.

12. A method for polishing an end face according to Claim 7,

wherein the roulette is relative internal trochoid inscribed to a first circle and drawn by a point fixed in the second circle smaller in diameter than the first circle.

13. A method for polishing an end face according to Claim 7,

wherein the roulette is relative external trochoid inscribed to a first circle and drawn by a point fixed out of the second circle smaller in diameter than the first circle.

14. A method for polishing an end face,  
wherein the driving is performed by a XY table.

15. A method for polishing an end face according to Claim 7,

wherein the driving speed is variable.